REMARKS

Claims 1-54 were originally filed in the present application, and claim 55 was subsequently added. No claims are currently canceled or added. Consequently, claims 1-55 are currently pending in the present application.

Reconsideration of the present application in light of the above amendments and the following remarks is respectfully requested.

Rejections under 35 U.S.C. §102

Claim 1

Claim 1 recites:

> 1. A method for performing an operation on a hierarchical data tree, comprising:
> visiting an anchor node in the tree;
> retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation;
> querying a cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition based on the retrieved data, wherein the cache stores pre-operation/post-operation data pairs;
> if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; and
> if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Publication No. 2001/0044327 of Kanefsky ("Kanefsky").

The PTO provides in MPEP §2131 that:

> *"[t]o anticipate a claim, the reference must teach every element of the claim...."*

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Therefore, to sustain this rejection with respect to claim 1, Kanefsky must contain all of the above claimed elements of the claim.

Method for performing an operation on a hierarchical data tree

Kanefsky does not disclose a method for performing an operation on a hierarchical data tree, as recited in claim 1. In contrast, Kanefsky discloses various embodiments, methods and systems for allowing a wireless device user to navigate about a menu displayed on the wireless device whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation, such as information relating to commercial advertisements, and display various messages at the wireless device based on the extrinsic information.

Nonetheless, the Examiner cites paragraphs 0072-0074 of Kanefsky as allegedly disclosing a method for performing an operation on a hierarchical data tree. However, paragraphs 0072-0074 only teach that scroll bar 510 can highlight an item to evoke a related script 628 directed to a series of operations. For example, in a first operation, the script 628 can perform a first operation designed to attract a consumer's attention. If the consumer responds to the script 628, the exemplary script 628 can evoke a second operation by providing the customer with a number of available tire options and respective prices from which to choose. Next, the script can search the databases of various vendors via the Internet to assure that a particular vendor has the customer's choice in stock. Then the script can perform a number of value-added services, such as making a reservation or purchase using the consumer's credit card information and placing a phone call to the appropriate vendor. This is clearly different from performing an operation on a hierarchical data tree. First, this portion of Kanefsky fails to even mention a hierarchical data tree. Second, the menu-selectable operations described in Kanefsky are not "operations performed on a hierarchical data tree" but are instead operations merely performed in response to user navigation of nested menus. For example, the operations described in Kanefsky

are not performed "on" the nested menus. Also, hierarchical menus are patentably distinct from hierarchical data trees.

Retrieving data from an anchor node and a plurality of neighboring nodes

The Examiner also cites Kanefsky paragraphs 0020, 0067 and 0068 as allegedly disclosing visiting an anchor node in a hierarchical data tree and retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation being performed on the hierarchical data tree. However, paragraphs 0020, 0067 and 0068 only teach that in a wireless device user viewing the hierarchical menu can navigate among various folders of the menu until selecting a non-folder item, such as a command designed to display stock quotes or place a phone call. Menu portion 400 consists of a hierarchy of folders 420-428 with respective messages 410-418, including a root folder 420 containing a list of items directed to other folders, information and commands. Root folder 420 has a root message 410 which can be a revolving series of wireless service advertisements and status information, such as an indication of a number of unread email/voicemail messages. However, such mere navigation of a hierarchical menu is patentably distinct and otherwise different from visiting an anchor node of a hierarchical data tree and retrieving data from the anchor node and its neighbors.

Consequently, Kanefsky fails to disclose visiting an anchor node in a hierarchical data tree and retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation being performed on the hierarchical data tree, as recited in claim 1.

Querying a pre-/post-operation data pair cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition

The Examiner also cites Kanefsky paragraphs 0020-0023 and 0032-0035 as allegedly disclosing querying a cache for a key representing the anchor node and the plurality of

neighboring nodes in a pre-operation condition based on the retrieved data, wherein the cache stores pre-operation/post-operation data pairs. However, these portions of Kanefsky only teach that, in addition to the menu navigation described above, by automatically evoking targeted sequences of messages, queries and commands, a cellular phone can not only assist its user to find precisely tailored services, but can also expedite the acquisition of those services. For example, as the user browses in a specific service-related menu folder, such browsing can activate various scripts designed to acquire specific information from the user. As the user responds to the script's queries, the user can quickly identify a number of desired services and select service providers according to various identified criteria, such as location, price and the quality of the desired services.

During operation, a user can send a first signal indicating the desire to utilize the server 130. In response, the server 130 can generate and provide an initial menu and command file that assigns various command functions to the various buttons/controls on a wireless device that are customized to the wireless device's display and control capacity. The wireless device 160, in turn, can display the starting folder of the menu to the consumer and enact the command file.

The hierarchical structure described in Kanefsky includes a first level of a menu ("root" or "root folder") and everything below it ("deck"). Folders can contain a number of "items" that can be linked to other folders in the menu. Selecting a folder item can cause the wireless device 160 to effectively open the respective folder and display any items contained in that folder.

However, none of this disclosure in Kanefsky describes, or is even related to:

(1) querying a cache;

(2) querying a cache that stores pre-operation/post-operation data pairs;

(3) querying a cache for a key representing the anchor node and the plurality of neighboring nodes;

(4) querying a cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition; or

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(5) querying a cache for a key representing the anchor node and the plurality of

neighboring nodes in a pre-operation condition based on the retrieved data.

Replacing pre-operation data with cached post-operation data or generated post-operation data depending on whether the query finds a match

The Examiner also cites Kanefsky paragraphs 0021, 0022 and 0038 as allegedly disclosing: if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; and if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data. However, these portions of Kanefsky clearly do not describe replacing pre-operation data with cached post-operation data, in lieu of repeating the operation to generate post-operation data, when the cache query finds a match. Kanefsky is merely describing a user-navigable, hierarchical menu structure by which various scripts are activated to acquire specific information from the user such that the user can quickly identify desired services and select service providers. Kanefsky does not accomplish this by, or is even remotely related to, replacing pre-operation data with cached post-operation data or generated post-operation data depending on whether a cache query finds a match.

Consequently, Kanefsky fails to disclose: if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; and if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data, as recited in claim 1.

In view of the above, the §102 rejection of claim 1 is not supported by Kanefsky. Therefore, Applicants respectfully request the Examiner withdraw the rejection.

Claim 27

Claim 27 recites:

> 27. A processing system for performing an operation on a hierarchical data tree, comprising:
> means for retrieving data from an anchor node in the tree and a plurality of neighboring nodes affected by the operation;
> means for querying a cache for a key representative of the anchor node and the plurality of neighboring nodes based on the retrieved data;
> means for replacing the retrieved data with cached data if the query finds a match; and
> means for performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key if the query does not find a match.

Claim 27 was also rejected under 35 U.S.C. §102(b) as being anticipated by Kanefsky. To sustain this rejection, Kanefsky must contain all of the above claimed elements of the claim. However, in a manner substantially similar to as described above with respect to claim 1, Kanefsky fails to disclose each of the following:

- a processing system for performing an operation on a hierarchical data tree;

- means for retrieving data from an anchor node in the tree and a plurality of neighboring nodes affected by the operation;

- means for querying a cache for a key representative of the anchor node and the plurality of neighboring nodes based on the retrieved data;

- means for replacing the retrieved data with cached data if the query finds a match; and

- means for performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key if the query does not find a match.

Accordingly, the §102 rejection of claim 27 is not supported by Kanefsky. Therefore, Applicants respectfully request the Examiner withdraw the rejection.

Claim 39

Claim 39 recites:

> 39. A program product, comprising:
> a computer-readable storage medium;
> means recorded on the medium for retrieving data from an anchor node in a hierarchical data tree and a plurality of neighboring nodes affected by an operation to be performed on the tree;
> means recorded on the medium for querying a cache for a key representative of the anchor node and the plurality of neighboring nodes based on the retrieved data;
> means recorded on the medium for replacing the retrieved data with cached data if the query finds a match; and
> means recorded on the medium for performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key if the query does not find a match.

Claim 39 was also rejected under 35 U.S.C. §102(b) as being anticipated by Kanefsky. To sustain this rejection, Kanefsky must contain all of the above claimed elements of the claim. However, in a manner substantially similar to as described above with respect to claim 1, Kanefsky fails to disclose each of the following:

- means recorded on a computer-readable storage medium for retrieving data from an anchor node in a hierarchical data tree and a plurality of neighboring nodes affected by an operation to be performed on the tree;

- means recorded on the medium for querying a cache for a key representative of the anchor node and the plurality of neighboring nodes based on the retrieved data;

- means recorded on the medium for replacing the retrieved data with cached data if the query finds a match; and

- means recorded on the medium for performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key if the query does not find a match.

Accordingly, the §102 rejection of claim 39 is not supported by Kanefsky. Therefore, Applicants respectfully request the Examiner withdraw the rejection.

Claim 54

Claim 54 recites:

> 54. A method for performing an operation on a hierarchical data tree, comprising:
> retrieving data from an anchor node in the tree and a plurality of neighboring nodes each potentially affected by the operation;
> querying a cache for a key representing the anchor node and the plurality of neighboring nodes based on the retrieved data;
> if the query finds a match, replacing the retrieved data with cached data; and
> if the query does not find a match, performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key.

Claim 54 was also rejected under 35 U.S.C. §102(b) as being anticipated by Kanefsky. To sustain this rejection, Kanefsky must contain all of the above claimed elements of the claim. However, in a manner substantially similar to as described above with respect to claim 1, Kanefsky fails to disclose each of the following:

- a method for performing an operation on a hierarchical data tree;

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- retrieving data from an anchor node in the tree and a plurality of neighboring nodes each potentially affected by the operation;

- querying a cache for a key representing the anchor node and the plurality of neighboring nodes based on the retrieved data;

- replacing the retrieved data with cached data if the query finds a match; and

- if the query does not find a match, performing the operation on the retrieved data to generate post-operation data, replacing the retrieved data with the post-operation data and storing the post-operation data in the cache based on the key.

Accordingly, the §102 rejection of claim 54 is not supported by Kanefsky. Therefore, Applicants respectfully request the Examiner withdraw the rejection.

Rejections Under 35 U.S.C. §103: Kanefsky in view of Hsiung

Claims 7-10, 24-26, 36-38 and 48-50 were rejected under 35 U.S.C. §103 as being unpatentable over Kanefsky in view of U.S. Pat. No. 6,865,509 to Hsiung ("Hsiung"). Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1, 27 and 39.

As the PTO recognizes in MPEP §2142:

> ... *The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following, mutually exclusive, reasons.

1.   **Even When Combined, the References Do Not Teach the Claimed Subject**

Matter

As provided in 35 U.S.C. §103:

> *A patent may not be obtained ... if the differences between*
> *the subject matter sought to be patented and the prior art are such*
> *that the <u>subject matter as a whole</u> would have been obvious at the*
> *time the invention was made to a person having ordinary skill in*
> *the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, as described above, Kanefsky fails to teach each and every element of claims 1, 27 and 39. Moreover, Hsiung fails to cure Kanefsky's shortcomings because Hsiung also fails to teach each and every element of claims 1, 27 and 39. Therefore, because claims 7-10, 24-26, 36-38 and 48-50 depend from claims 1, 27 and 39, it is impossible for the combination of Kanefsky and Hsiung to render obvious the subject matter of any of claims 7-10, 24-26, 36-38 and 48-50, as a whole, and the explicit terms of §103 cannot be met. Accordingly, Applicants respectfully request the Examiner withdraw the rejection.

2.   **Nonanalogous art cannot be used to establish obviousness**

The present application is directed towards solid model data manipulation, such as systems and methods for processing data stored in, for example, a directed acyclic graph octree. In contrast, Kanefsky is limited to methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. 35 USC §103 requires that obviousness be determined on the basis of whether at the time the invention was made a person of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious. Although one of ordinary skill in the art is presumed to be aware

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of all prior art in the field to which the invention pertains, he is not presumed to be aware of prior art <u>outside that field and the field of the problem to be solved</u>, *i.e.*, nonanalogous art. Accordingly, in assessing the propriety of any assertion of prior art as a basis for a *prima facie* case of obviousness, one must determine the scope or bounds of the knowledge of one of ordinary skill in the art, *i.e.*, the analogous art presumably known by one of ordinary skill in the art.

Here, Kanefsky is from a nonanalogous art, thus precluding any *prima facie* case of obviousness.

Thus, for this independent reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Therefore, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. §103 based, at least in part, on Kanefsky.

3.   The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly <u>not</u> the case based on the above), there is still another, mutually exclusive, and compelling reason why Kanefsky and Hsiung cannot be applied to reject claims 1, 27 and 39, and their dependent claims, under 35 U.S.C. §103.

§2142 of the MPEP also provides:

> *...the Examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The Examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.*

Here, neither Kanefsky nor Hsiung teaches, or even suggests, the desirability of combination as specified above and as claimed in claims 1, 27 and 39. That is, neither reference teaches or suggests:

- a method for performing an operation on a hierarchical data tree;

- visiting an anchor node in the tree;

- retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation;

- querying a cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition based on the retrieved data, wherein the cache stores pre-operation/post-operation data pairs;

- if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; or

- if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data.

Moreover, Kanefsky and Hsiung are nonanalogous art relative to each other. That is, Kanefsky is directed towards methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. In contrast, Hsiung is directed towards techniques for monitoring and/or controlling processes by comparing the current state of a first process to current, historical, and/or predicted state of the first process or a second process using statistical, structural, or physical models. Consequently, one skilled in the art pertinent to Kanefsky would not be motivated to look to the disclosure of Hsiung, whether to arrive at a combination germane to the present application or otherwise. Likewise, one skilled in the art

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pertinent to Hsiung would not be motivated to look to the disclosure of Kanefsky, whether to arrive at a combination germane to the present application or otherwise.

Thus, it is clear that neither Kanefsky nor Hsiung provides any incentive or motivation supporting the desirability of their combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the combination of Kanefsky and Hsiung can arise solely from hindsight based on the present application without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claims 1, 27 or 39. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103 based on Kanefsky and Hsiung.

Rejections Under 35 U.S.C. §103: Kanefsky in view of Schreiber

Claims 15-20 were rejected under 35 U.S.C. §103 as being unpatentable over Kanefsky in view of U.S. Pat. Publication No. 2002/0138353 of Schreiber. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 1.

As the PTO recognizes in MPEP §2142:

> ... *The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following, mutually exclusive, reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

As provided in 35 U.S.C. §103:

> *A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the <u>subject matter as a whole</u> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, as described above, Kanefsky fails to teach each and every element of claim 1. Moreover, Schreiber fails to cure Kanefsky's shortcomings because Schreiber also fails to teach each and every element of claim 1. Therefore, because claims 15-20 depend from claim 1, it is impossible for the combination of Kanefsky and Schreiber to render obvious the subject matter of any of claims 15-20, as a whole, and the explicit terms of §103 cannot be met. Accordingly, Applicants respectfully request the Examiner withdraw the rejection.

2. Nonanalogous art cannot be used to establish obviousness

The present application is directed towards solid model data manipulation, such as systems and methods for processing data stored in, for example, a directed acyclic graph octree. In contrast, Kanefsky is limited to methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. 35 USC §103 requires that obviousness be determined on the basis of whether at the time the invention was made a person

of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious. Although one of ordinary skill in the art is presumed to be aware of all prior art in the field to which the invention pertains, he is not presumed to be aware of prior art outside that field and the field of the problem to be solved, *i.e.*, nonanalogous art. Accordingly, in assessing the propriety of any assertion of prior art as a basis for a *prima facie* case of obviousness, one must determine the scope or bounds of the knowledge of one of ordinary skill in the art, *i.e.*, the analogous art presumably known by one of ordinary skill in the art.

Here, Kanefsky is from a nonanalogous art, thus precluding any *prima facie* case of obviousness.

Thus, for this independent reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Therefore, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. §103 based, at least in part, on Kanefsky.

3.   The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly not the case based on the above), there is still another, mutually exclusive, and compelling reason why Kanefsky and Schreiber cannot be applied to reject claim 1, and its dependent claims, under 35 U.S.C. §103.

§2142 of the MPEP also provides:

> *...the Examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The Examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.*

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Here, neither Kanefsky nor Schreiber teaches, or even suggests, the desirability of combination as specified above and as claimed in claim 1. That is, neither reference teaches or suggests:

- a method for performing an operation on a hierarchical data tree;
- visiting an anchor node in the tree;
- retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation;
- querying a cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition based on the retrieved data, wherein the cache stores pre-operation/post-operation data pairs;
- if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; or
- if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data.

Moreover, Kanefsky and Schreiber are nonanalogous art relative to each other. That is, Kanefsky is directed towards methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. In contrast, Schreiber is directed towards databases that store records having fields with sets rather than single values therein. Consequently, one skilled in the art pertinent to Kanefsky would not be motivated to look to the disclosure of Schreiber, whether to arrive at a combination germane to the present application or otherwise. Likewise, one skilled in the art pertinent to Schreiber would not be motivated to look

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to the disclosure of Kanefsky, whether to arrive at a combination germane to the present application or otherwise.

Thus, it is clear that neither Kanefsky nor Schreiber provides any incentive or motivation supporting the desirability of their combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the combination of Kanefsky and Schreiber can arise solely from hindsight based on the present application without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 1. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103 based on Kanefsky and Schreiber.

Rejections Under 35 U.S.C. §103: Kanefsky in view of Schreiber and Hsiung

Claims 11-14 were rejected under 35 U.S.C. §103 as being unpatentable over Kanefsky in view of Schreiber and Hsiung. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 1.

As the PTO recognizes in MPEP §2142:

> *... The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following, mutually exclusive, reasons.

1.   **Even When Combined, the References Do Not Teach the Claimed Subject**

Matter

As provided in 35 U.S.C. §103:

> *A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the <u>subject matter as a whole</u> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, as described above, Kanefsky fails to teach each and every element of claim 1. Moreover, Schreiber and Hsiung fail to cure Kanefsky's shortcomings because Schreiber and Hsiung each also fail to teach each and every element of claim 1. Therefore, because claims 11-14 depend from claim 1, it is impossible for the combination of Kanefsky, Schreiber and Hsiung to render obvious the subject matter of any of claims 11-14, as a whole, and the explicit terms of §103 cannot be met. Accordingly, Applicants respectfully request the Examiner withdraw the rejection.

2.   **Nonanalogous art cannot be used to establish obviousness**

The present application is directed towards solid model data manipulation, such as systems and methods for processing data stored in, for example, a directed acyclic graph octree. In contrast, Kanefsky is limited to methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. 35 USC §103 requires that obviousness be determined on the basis of whether at the time the invention was made a person of ordinary skill in the art to which the subject matter pertains would have found the claimed

invention as a whole obvious. Although one of ordinary skill in the art is presumed to be aware of all prior art in the field to which the invention pertains, he is not presumed to be aware of prior art <u>outside that field and the field of the problem to be solved</u>, *i.e.*, nonanalogous art. Accordingly, in assessing the propriety of any assertion of prior art as a basis for a *prima facie* case of obviousness, one must determine the scope or bounds of the knowledge of one of ordinary skill in the art, *i.e.*, the analogous art presumably known by one of ordinary skill in the art.

Here, Kanefsky is from a nonanalogous art, thus precluding any *prima facie* case of obviousness.

Thus, for this independent reason alone, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Therefore, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. §103 based, at least in part, on Kanefsky.

3. The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly <u>not</u> the case based on the above), there is still another, mutually exclusive, and compelling reason why Kanefsky, Schreiber and Hsiung cannot be applied to reject claim 1, and its dependent claims, under 35 U.S.C. §103.

§2142 of the MPEP also provides:

> ...the Examiner must step backward in time and into the shoes
> worn by the hypothetical 'person of ordinary skill in the art' when
> the invention was unknown and just before it was made.....The
> Examiner must put aside knowledge of the applicant's disclosure,
> refrain from using hindsight, and consider the subject matter
> claimed 'as a whole'.

Here, neither Kanefsky, Schreiber nor Hsiung teaches, or even suggests, the desirability of combination as specified above and as claimed in claim 1. That is, neither reference teaches or suggests:

- a method for performing an operation on a hierarchical data tree;
- visiting an anchor node in the tree;
- retrieving data from the anchor node and a plurality of neighboring nodes each potentially affected by the operation;
- querying a cache for a key representing the anchor node and the plurality of neighboring nodes in a pre-operation condition based on the retrieved data, wherein the cache stores pre-operation/post-operation data pairs;
- if the query finds a match, replacing the pre-operation retrieved data with cached post-operation data; or
- if the query does not find a match, performing the operation on the pre-operation retrieved data to generate post-operation data, replacing the pre-operation retrieved data with the post-operation data and storing the post-operation data in the cache with the associated pre-operation retrieved data.

Moreover, Schreiber and Hsiung are each nonanalogous art relative to Kanefsky. That is, Kanefsky is directed towards methods and systems for allowing a wireless device user to navigate a menu whereby, in response to various navigation commands, a wireless server can retrieve extrinsic information based on the user's navigation. In contrast, Schreiber is directed towards databases that store records having fields with sets rather than single values therein, and Hsiung is directed towards techniques for monitoring and/or controlling processes by comparing the current state of a first process to current, historical, and/or predicted state of the first process or a second process using statistical, structural, or physical models. Consequently, one skilled in the art pertinent to Kanefsky would not be motivated to look to the disclosure of either Schreiber

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or Hsiung, whether to arrive at a combination germane to the present application or otherwise. Likewise, one skilled in the art pertinent to either Schreiber or Hsiung would not be motivated to look to the disclosure of Kanefsky, whether to arrive at a combination germane to the present application or otherwise.

Thus, it is clear that neither Kanefsky, Schreiber nor Hsiung provides any incentive or motivation supporting the desirability of their combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the combination of Kanefsky, Schreiber and Hsiung can arise solely from hindsight based on the present application without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 1. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103 based on Kanefsky, Schreiber and Hsiung.
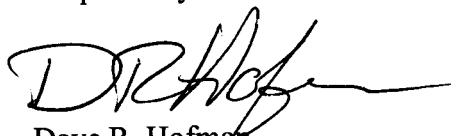
Conclusion

It is clear from all of the foregoing that independent claims 1, 27, 39 and 54 are in condition for allowance. Dependent claims 2-26, 28-38, 40-53 and 55 depend from and further limit independent claims 1, 27, 39 and 54 and, therefore, are allowable as well.

Should the Examiner deem that an interview with Applicants' undersigned attorney would expedite consideration, the Examiner is invited to call the undersigned attorney at the telephone number indicated below.

An early formal notice of allowance of claims 1-55 is requested.
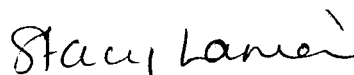
Respectfully submitted,

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Dated: 6/30/06

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Document No.: H-618652.1

Certificate of Service

I hereby certify that this correspondence is being filed with the U.S. Patent and Trademark Office via EFS-Web on June 30, 2006.

Stacy Lanier

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